AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A computer system to provide one or more product selections to a user in accordance with product related data provided by the user, the computer system comprising:

a database storing product configuration information, wherein the product configuration information comprises product identifier information corresponding to product attribute information for multiple product configurations;

a memory;

a processor coupled to the memory and the database;

a data receiving module, stored in the memory, to receive the product related data from the user through a communication link coupled between a data processing system of the user and the data receiving module;

a filter service module, stored in the memory, to (i) receive one or more product attributes and (ii) identify one or more of the product configurations stored in the database that each include the one or more product attributes, if the product related data represents the one or more product attributes;

a configuration service module, stored in the memory, to (i) receive a product identifier and to (ii) identify each combination of attributes stored in the database that corresponds to the product identifier, if the product related data represents the product identifier; and

a presentation module, stored in the memory, to (i) provide each identified product configuration as a product selection to the user via the communication link if the product related data represents the one or more product attributes and (ii) provide one or more product selections to the user via the communication link, wherein, if the product related data represents the product identifier, each product selection represents a product identifier and a respective combination of attributes identified as corresponding to the product identifier.

2. (Previously Presented) The computer system of claim 1 wherein the product configurations are pre-generated product configurations, the computer system further comprising:

a software configuration engine stored in the memory to generate the pre-generated product configurations.

3. (Previously Presented) The computer system of claim 1 wherein the data receiving module is further configured to receive data indicating a user selected product, wherein the selected product corresponds to one of the identified product configurations, and the data receiving module is further configured to receive product configuration selections from the user to further configure the selected product, the computer system further comprising:

a software configuration engine, stored in the memory, to generate configured product data corresponding to the product configuration selections associated with the selected product and in accordance with the product configuration information; and

wherein the presentation module is further configured to present the configured product data to the user via the communication link.

4. (Previously Presented) The computer system of claim 1 wherein the product configurations are pre-generated product configurations, the system further comprising a needs analysis module, stored in the memory, to (i) process the received product related data and (ii) determine which of the service modules to provide the product related data, wherein:

said filter service module is further configured to provide a product identifier to said needs analysis module in response to one or more product attributes received from said needs analysis module,

said product identifier identifies a pre-generated product configuration, and

said each of the one or more product attributes is an attribute of said pre-generated product configuration.

5. (Previously Presented) The computer system of claim 4, wherein

said filter service module is further configured to use said to retrieve said product identifier from said database.

6. (Previously Presented) The computer system of claim 1, wherein said database contains product identifier information that identifies each product configuration and

reference data that links the one or more product attributes to a product configuration.

7. (Previously Presented) The computer system of claim 6, wherein the product configurations are pre-generated product configurations and said database comprises:

a configuration table storing the pre-generated product configurations; and

an attribute table storing the one or more product attributes.

8. (Previously Presented) The computer system of claim 7, wherein said configuration table contains said product identifier.

9. (Previously Presented) The computer system of claim 7, wherein the product configurations are pre-generated product configurations and

said attribute table comprises an attribute record comprising an attribute field containing said one or more product attributes, and an intersection field containing a reference to at least one of the pre-generated product configurations, and

said configuration table comprises a configuration record comprising a configuration field containing said pre-generated product configurations~~,~~ and an identifier field containing said product identifier.

10. (Previously Presented) The computer system of claim 9, wherein

each pre-generated product configuration describes a configuration of a product that is an allowable product configuration in accordance with product rules governing allowable combinations of product attributes,

said attribute information describes an attribute of said product, and

said pre-generated product configuration of said product includes said one or more product attributes.

11. (Previously Presented) The computer system of claim 9, the system further comprising a needs analysis module, stored in the memory, to (i) process the received product related data and (ii) determine which of the service modules to provide the product related data, wherein

said needs analysis module is configured to access said product configuration information through said filter service.

12. (Previously Presented) The computer system of claim 9, wherein said reference allows said filter service module to access said configuration record by virtue of said filter service module being configured to access said attribute record using said one or more product attributes.

13. (Previously Presented) The computer system of claim 1, the system further comprising a needs analysis module, stored in the memory, to (i) process the received product related data and (ii) determine which of the service modules to provide the product related data, and wherein said needs analysis module is configured to permit identification of at least one of the product configurations based on the product identifier.

14. (Canceled).

15. (Previously Presented) The computer system of claim 1, the system further comprising a needs analysis module, stored in the memory, to (i) process the received product related data and (ii) determine which of the service modules to provide the product related data, and wherein said configuration service module is configured to provide a configuration list to said needs analysis module in response to a product identifier received from said needs analysis module.

16. (Previously Presented) The computer system of claim 15, wherein said configuration list is a list of the available product attributes of said product.

17. (Previously Presented) The computer system of claim 15, wherein said configuration list is a list of configurations of said product.

18. (Previously Presented) The computer system of claim 15, wherein said configuration service is configured to use said product identifier to generate said configuration list from information stored in said database.

19. (Previously Presented) The computer system of claim 1, wherein said database contains product identifier information.

20. (Previously Presented) The computer system of claim 19, wherein said

database comprises:

a configuration table containing said product identifier and said product configuration information.

21. (Previously Presented) The computer system of claim 20, the system further comprising a needs analysis module, stored in the memory, to (i) process the received product related data and (ii) determine which of the service modules to provide the product related data, and wherein

said needs analysis module is configured to access said product configuration information through said product identifier to said configuration service module, and

said configuration service module is configured to access said database by virtue of being configured to access said database using said product identifier.

22. (Previously Presented) The computer system of claim 20, wherein the product configurations are pre-generated product configurations and said configuration table comprises a configuration record comprising

a configuration field containing said pre-generated product configurations, and

an identifier field containing said product identifier.

23. (Previously Presented) The computer system of claim 22, wherein

said pre-generated product configurations describe a product previously configured and saved by the user, and

said product identifier identifies said configuration of said product.

24. (Previously Presented) A computer program product encoded in a computer readable medium, the computer program product comprising code executable on a computer system to provide one or more product selections to a user in accordance with product related data provided by the user, the code comprising instructions to:

receive the product related data from the user through a communication link coupled between a data processing system of the user and the computer system;

access a database storing product configuration information, wherein the product configuration information comprises product identifier information corresponding to product attribute information for multiple product configurations;

receive one or more product attributes and identify one or more product configurations stored in the database that each include the one or more product attributes, if the product related data represents the one or more product attributes;

receive a product identifier and identify each combination of attributes stored in the database that corresponds to the product identifier, if the product related data represents the product identifier, if the product related data represents the product identifier;

provide each identified product configuration as a product selection to the user via the communication link if the product related data represents the one or more product attributes; and

provide one or more product selections to the user via the communication link, wherein, if the product related data represents the product identifier, each product selection represents a product identifier and a respective combination of attributes identified as corresponding to the product identifier.

25. (Previously Presented) The computer program product of claim 24, wherein the code further comprises code to permit identification of a product based on the one or more product attributes.

26. (Previously Presented) The computer program product of claim 24, wherein the code further comprises code to:

receive data indicating a user selected product, wherein the selected product corresponds to one of the product selections;

receive product configuration selections from the user to further configure the selected product;

generate configured product data corresponding to the product configuration selections associated with the selected product and in accordance with product rules stored in a memory that govern allowable combinations of the product features; and

provide the configured product data to the user via the communication link.

27. (Previously Presented) The computer program product of claim 26, wherein the product configurations are pre-generated product configurations and said product

identifier identifies ~~a~~ at least one of the pre-generated product configurations, and

said each of said one or more attributes is an attribute of said product.

28. (Previously Presented) The computer program product of claim 27, wherein the code further comprises code to:

use each of said one or more attributes to retrieve said product identifier from said database.

29. (Previously Presented) The computer program product of claim 26 wherein the product configurations are pre-generated product configurations and the computer program product further comprises a data structure, the data structure comprising information resident in said database, the information comprising:

product identifiers associated with each pre-generated product configuration and reference data that links the one or more product attributes to each pre-generated product configuration.

30. (Previously Presented) The computer program product of claim 29, wherein the product configurations are pre-generated product configurations and said data structure further comprises:

a configuration table storing the pre-generated product configurations, and

an attribute table to store one or more product attributes.

31. (Previously Presented) The computer program product of claim 30, wherein

said configuration table contains said product identifier said attribute table contains said one or more attributes.

32. (Previously Presented) The computer program product of claim 30, wherein the product configurations are pre-generated product configurations and

said attribute table comprises an attribute record comprising an attribute field containing said one or more product attributes, and an intersection field containing a reference to at least one of the pre-generated product configurations, and

said configuration table comprises a configuration record comprising a configuration

field containing said pre-generated product configurations, and an identifier field containing said product identifier.

33. (Previously Presented) The computer program product of claim 32, wherein each pre-generated product configuration describes a configuration of a product that is an allowable product configuration in accordance with product rules governing allowable combinations of product attributes;

said attribute information describes an attribute of said product, and

said pre-generated product configuration of said product includes said one or more product attributes.

34. (Previously Presented) The computer program product of claim 32, wherein the code further comprises code to:

access said product identifier information using said attribute information.

35. (Previously Presented) The computer program product of claim 32, wherein

said reference allows the code to access said configuration record by accessing said attribute record using said one or more product attributes.

36. (Canceled).

37. (Previously Presented) The computer program product of claim 24, wherein said code further comprises code to permit identification of a product configuration based on the product identifier.

38. (Canceled).

39. (Previously Presented) The computer program product of claim 24, wherein the code further comprises a needs analysis module.

40. (Previously Presented) The computer program product of claim 39, wherein said code further comprises code to:

provide a configuration list to said needs analysis module in response to the product identifier received from said needs analysis module.

41. (Previously Presented) The computer program product of claim 40, wherein

said configuration list is a list of the available product attributes of said product.

42. (Previously Presented) The computer program product of claim 40, wherein said configuration list is a list of configurations of said product.

43. (Previously Presented) The computer program product of claim 40, wherein said code further comprises code to:

use said product identifier to generate said configuration list from information stored in said database.

44. (Canceled).

45. (Previously Presented) The computer program product of claim 29, wherein said data structure further comprises:

a configuration table containing said product identifier.

46. (Previously Presented) The computer program product of claim 45, wherein said code further comprises code to:

access said product configuration information by virtue of supplying said product identifier to a configuration service, and

access said database by virtue of being configured to access said database using said product identifier.

47. (Previously Presented) The computer program product of claim 45, wherein

said configuration table comprises a configuration record comprising a configuration field containing said pre-generated product configurations, and an identifier field containing said product identifier.

48. (Previously Presented) The computer program product of claim 47, wherein

said product configuration information describes a configuration of said product that is an

allowable product configuration in accordance with product rules governing allowable combinations of product attributes, and

said product identifier information identifies said pre-generated configuration of said product.

49. (Canceled).

50. (Canceled).

51. (Previously Presented) A method to provide one or more product selections to a user in accordance with product related data provided by the user, the method comprising:

receiving the product related data from the user through a communication link coupled between a data processing system of the user and the computer system;

processing the received product related data using resources of the computer system;

receiving one or more product attributes and identifying one or more product configurations stored in a database that each include the one or more product attributes, if the product related data represents the one or more product attributes;

receiving a product identifier and identifying each combination of attributes stored in the database that corresponds to the product identifier, if the product related data represents the product identifier, if the product related data represents the product identifier;

providing each identified product configuration as a product selection to the user via the communication link if the product related data represents the one or more product attributes; and

providing one or more product selections to the user via the communication link, wherein, if the product related data represents the product identifier, each product selection represents a product identifier and a respective combination of attributes identified as corresponding to the product identifier.

52. (Previously Presented) The method of claim 51, wherein the product configurations are pre-generated product configurations and

said product identifier information identifies pre-generated product configurations, and

each of said pre-generated product configuration represents a product having one or more

of the attributes.

53. (Previously Presented) The method of claim 52, further comprising:
causing a needs analysis module to provide said one or more attributes to a filter service; and
causing said filter service to return said product identifier to said needs analysis module.

54. (Previously Presented) The method of claim 51, wherein the product configurations are pre-generated product configurations, the method further comprising:
querying a database of said computer system, wherein querying said database comprises:
accessing an attribute table of said database using said one or more attributes;
identifying at least one database record comprising the product identifier and said attribute information; and
accessing said said database record to identify a pre-generated product configuration associated with said one or more attributes.

55. (Previously Presented) The method of claim 54, wherein
said product identifier is associated with said pre-generated product configurations, and
each of said pre-generated product configurations represents a product having said one or more attributes.

56. (Previously Presented) The method of claim 55, wherein
a configuration table comprises said pre-generated product configurations.

57. (Previously Presented) The method of claim 51 further comprising:
providing said product identifier to a configuration service;
identifying said product configuration corresponding to said product identifier by causing said configuration service to query a database using said product identifier; and
causing said configuration service to return said identified product configuration.

58. (Previously Presented) The method of claim 57, wherein the product configurations are pre-generated product configurations and said product identifier is associated with a pre-generated product configuration in said database.

59. (Previously Presented) The method of claim 58, further comprising:

causing a needs analysis module to provide said product identifier to said configuration service; and

causing said configuration service to return said pre-generated product configuration to said needs analysis module.

60. (Previously Presented) The method of claim 57, wherein the product configurations are pre-generated product configurations and said querying said database comprises:

accessing a configuration table of said database using said product identifier to identify said pre-generated product configuration.

61. (Previously Presented) The method of claim 60, wherein

each of said pre-generated product are associated with said product identifier.

62. (Previously Presented) The method of claim 51 further comprising:

receiving data indicating a user selected product, wherein the selected product corresponds to one of the identified product configurations;

receiving product configuration selections from the user to further configure the selected product;

generating configured product data corresponding to the product configuration selections associated with the selected product and in accordance with the product configuration information; and

providing the configured product data to the user via the communication link.

63. (Canceled).

64. (Previously Presented) The method of claim 51, wherein said product related data includes data related to a vehicle.

65. (Previously Presented) The method of claim 64, wherein said product selections comprise a make of said vehicle.

66. (Previously Presented) The method of claim 64, wherein said product

selections comprise a model of said vehicle.

67. (Previously Presented) The method of claim 64, wherein said product selections comprise a trim level of said vehicle.

68. (Previously Presented) The method of claim 64, wherein said product selections comprise an equipment level of said vehicle.

69. (Previously Presented) The method of claim 64, wherein said product selections comprise one of a price range, a vehicle type, an engine type, a fuel economy, an interior feature and a safety feature.

70. (Currently Amended) An apparatus to provide one or more product selections to a user in accordance with product related data provided by the user, the apparatus comprising:

means for receiving the product related data from the user through a communication link coupled between a data processing system of the user and the computer system;

means for processing the received product related data using resources of the computer system;

means for receiving one or more product attributes and identifying one or more pre-generated product configurations stored in a database that each include the one or more product attributes, if the product related data represents the one or more product attributes;

receiving a product identifier and identifying each combination of attributes stored in the database that corresponds to the product identifier, [[,]] if the product related represents the product identifier;

means for providing each identified pre-generated product configuration as a product selection to the user via the communication link if the product related data represents the one or more product attributes; and

means for providing one or more product selections to the user via the communication link, wherein, if the product related data represents the product identifier, each product selection represents a product identifier and a respective combination of attributes identified as corresponding to the product identifier.

71. (Previously Presented) The apparatus of claim 70 further comprising:

means for receiving data indicating a user selected product, wherein the selected product corresponds to one of the identified pre-generated product configurations;

means for receiving product configuration selections from the user to further configure the selected product;

means for generating configured product data corresponding to the product configuration selections associated with the selected product and in accordance with the product configuration information; and

means for providing the configured product data to the user via the communication link.

72. (Previously Presented) The apparatus of claim 70 wherein the product related data includes data related to a vehicle.

73. (Previously Presented) The computer system of claim 1 wherein the product related data includes data related to a vehicle.

74. (Previously Presented) The computer program product of claim 24 wherein the product related data includes data related to a vehicle.